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## EUROPEAN PATENT APPLICATION

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㉒ **Composite comprising a silicon substrate and layered superconducting thin films.**

㉓ A composite comprising a silicon substrate (1) and a plurality of layers of a first oxide superconductor layer (3), a dielectric material layer (4), a second oxide superconductor layer (5), a second dielectric material layer (6) and a third oxide superconductor layer (7) deposited directly or through a buffer layer (2) in this order on the silicon substrate.

The composite is used for fabricating superconducting devices such as Josephson element, SQUID and microwave devices.

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## EUROPEAN SEARCH REPORT

Application Number

DOCUMENTS CONSIDERED TO BE RELEVANT			EP 91401967.4
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int. CL.5)
X	<u>DE - A1 - 3 812 662</u> (HITACHI) * Column 8, lines 35-67; column 13, lines 21-33; fig. 8 *	1, 6-9	H 01 L 23/485 H 01 L 39/00
X;Y	<u>DE - A1 - 3 810 494</u> (HITACHI) * Column 12, lines 29-64; column 6, lines 29-44; fig. 13 *	1, 4-6, 10, 14; 2, 3, 11-13, 15, 16	
Y	<u>EP - A1 - 0 301 646</u> (PHILIPS) * Column 1, line 13 - column 2, line 53 *	2, 3, 11-13	
Y	<u>EP - A2 - 0 307 246</u> (SEMICONDUCTOR) * Embodiments *	15	
Y	APPLIED PHYSICS LETTERS, vol. 51, No. 3, July 20, 1987 R.H. KOCH et al. "Quantum interference devices made from superconducting oxide thin films" pages 200-202 * Abstract *	16	TECHNICAL FIELDS SEARCHED (Int. CL.5)  H 01 L H 01 B 12/00
The present search report has been drawn up for all claims			
Place of search VIENNA	Date of completion of the search 17-10-1991	Examiner KUTZELNIGG	
CATEGORY OF CITED DOCUMENTS		T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document	
<small>X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document</small>			